



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

SORRELLS *et al.*

Appl. No.: 09/550,642

Filed: April 14, 2000

For: **Method and System for Down-  
Converting an Electromagnetic  
Signal, and Transforms for Same**

Confirmation No.: 9236

Art Unit: 2634

Examiner: Odom, Curtis B.

Atty. Docket: 1744.0920001

### **Sixth Supplemental Information Disclosure Statement**

#### ***Mail Stop Amendment***

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Sixth Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Fifth Supplemental Information Disclosure Statement filed on February 14, 2005 in connection with the above-captioned application.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

Applicants provide the following comments regarding the documents:

Document AM23 was cited in an Office Action in related German Patent Application No. 19983659.0-35, filed October 20, 1999, entitled "Method and System for Frequency Up-Conversion," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 5,557,641, which has already been cited in the present application.

Document AQ59 was cited in a Notice of Allowance in related U.S. Patent Application No. 10/290,323, filed November 8, 2002, entitled "Method and Apparatus for DC Offset Removal in a Radio Frequency Communication Channel," directed to related subject matter.

Document AR59 is an English-language Abstract of document AM23.

Documents AB65-AE65 were cited in a Notice of Allowance in related U.S. Patent Application No. 09/770,675, filed January 29, 2001, entitled "Wireless and Wired Cable Modem Applications of Universal Frequency Translation Technology," directed to related subject matter.

Documents AF65, AF66, and AG66 are co-owned patents which are directed to related subject matter.

Documents AG65-AI65 and AA66-AE66 were cited in an Office Action in related U.S. Patent Application No. 09/855,851, filed May 16, 2001, entitled "Apparatus, System, and Method for Down-Converting and Up-Converting Electromagnetic Signals," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,465,415,

6,049,706, 6,061,551, 6,580,902, 6,687,493, and 6,813,485, all of which have already been cited in the present application.

Document AH66 was cited in an Office Action in related U.S. Patent Application No. 09/476,092, filed January 3, 2000, entitled "Analog Zero IF FM Decoder And Embodiments Thereof, Such As The Family Radio Service," directed to related subject matter. Also cited in said Office Action were U.S. Pat. Nos. 5,600,680 and 5,606,731, which have already been cited in the present application.

Documents AI66 and AA67-AC67 were cited in an Office Action in related U.S. Patent Application No. 09/567,977, filed May 10, 2000, entitled "Optical Down-Converter Using Universal Frequency Translation Technology," directed to related subject matter. Also cited in said Office Action was Stewart, R.W. and Pfann, E., "Oversampling and sigma-delta strategies for data conversion," *Electronics & Communication Engineering Journal*, IEEE, pp. 37-47 (February 1998), which has already been cited in the present application.

Documents AD67 and AE67 were cited in a Notice of Allowance in related U.S. Patent Application No. 09/632,855, filed August 4, 2000, entitled "Wireless Local Area Network (WLAN) Using Universal Frequency Translation Technology Including Multi-Phase Embodiments," directed to related subject matter.

Document AF67 was cited in an Office Action in related U.S. Patent Application No. 09/796,824, filed March 2, 2001, entitled "Phased Array Antenna Applications of Universal Frequency Translation," directed to related subject matter. Also cited in said

Office Action was U.S. Patent No. 5,742,189, which has already been cited in the present application.

Documents AG67-AI67 were cited in an Office Action in related U.S. Patent Application No. 10/318,207, filed December 13, 2002, entitled "Method And Apparatus For Reducing Re-Radiation Using Techniques Of Universal Frequency Translation Technology," directed to related subject matter.

This statement should not be construed as a representation that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

- ☐ 1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.
- ☐ 2. Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.
- ☒ 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final

Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.

- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
  - ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
  - ☒ c. Attached is our PTO-2038 Credit Card Payment Form in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).
- ☐ 4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Enclosed find our PTO-2038 Credit Card Payment Form in the amount of \$ \_\_\_\_\_ in payment of the fee under 37 C.F.R. § 1.17(p); in addition:

- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ 5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.
- ☒ 6. A concise explanation of the relevance of the non-English language document AM23 appears below in accordance with 37 C.F.R. § 1.98(a)(3):
- Document AM23 (DE 69221098T2) appears to describe a radiofrequency frequency multiplier comprising an automatic level control circuit. An English-language

abstract of document AM23 is enclosed as document AR59. It is also noted that document AM23 is a counterpart of European Patent Publication EP 0 548 542 A1, which has already been cited in the present application.

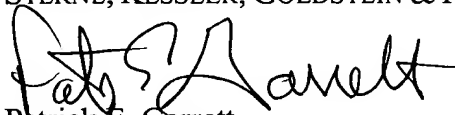
- ☒ 7. Copies of documents AM23, AQ59, and AR59 are enclosed. However, in accordance with 37 C.F.R. § 1.98(a)(2), copies of the U.S. patents and patent application publications cited on the attached Form PTO-1449 are not enclosed.
- ☐ 8. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. \_\_\_\_\_, filed \_\_\_\_\_, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).
- ☒ 9. It is expected that the examiner will review the prosecution and cited art in the parent Application No. 09/521,878, filed March 9, 2000, in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed Form PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

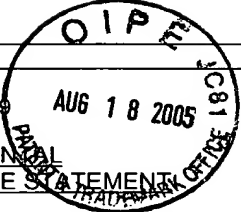
A handwritten signature in black ink, appearing to read "Patrick E. Garrett", written over the printed name.

Patrick E. Garrett  
Attorney for Applicants  
Registration No. 39,987

Date: 8/18/05

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Washington, D.C. 20005-3934  
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		Page 1 of 3	
FORM PTO-1449 SIXTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT		ATTY. DOCKET NO. 1744.0920001	APPLICATION NO. 09/550,642
		FIRST NAMED INVENTOR David F. SORRELLS	
		FILING DATE April 14, 2000	ART UNIT 2634

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB65	6,385,439 B1	05/2002	Hellberg			
	AC65	6,741,139 B2	05/2004	Pleasant <i>et al.</i>			
	AD65	6,823,178 B2	11/2004	Pleasant <i>et al.</i>			
	AE65	6,850,742 B2	02/2005	Fayyaz			
	AF65	6,853,690 B1	02/2005	Sorrells <i>et al.</i>			
	AG65	4,789,837	12/1988	Ridgers			
	AH65	5,634,207	05/1997	Yamaji <i>et al.</i>			
	AI65	5,642,071	06/1997	Sevenhans <i>et al.</i>			

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM23	DE 692 21 098 T2	01/1998	DE			No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
EXAMINER INITIAL	DOC. REF.	CITATION
	AN	
	AO	
	AP	
	AQ59	Hellwarth, G.A. and Jones, G.D, "Automatic Conditioning of Speech Signals," <i>IEEE Transactions on Audio and Electroacoustics</i> , Vol. AU-16, No. 2, pp. 169-179 (June 1968).
	AR59	English Abstract for German Patent No. DE 692 21 098 T2, 1 page, data supplied from the espacenet.

EXAMINER	DATE CONSIDERED
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**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

AUG 18 2005

SIXTH SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

1744.0920001

APPLICATION NO.

09/550,642

FIRST NAMED INVENTOR

David F. SORRELLS

FILING DATE

April 14, 2000

ART UNIT

2634

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA66	6,211,718 B1	04/2001	Souetinov			
	AB66	6,212,369 B1	04/2001	Avasarala			
	AC66	6,308,058 B1	10/2001	Souetinov <i>et al.</i>			
	AD66	6,633,194 B2	10/2003	Arnborg <i>et al.</i>			
	AE66	2001/0036818 A1	11/2001	Dobrovolny			
	AF66	6,873,836 B1	03/2005	Sorrells <i>et al.</i>			
	AG66	6,879,817 B1	04/2005	Sorrells <i>et al.</i>			
	AH66	2003/0081781 A1	05/2003	Jensen <i>et al.</i>			
	AI66	5,994,689	11/1999	Charrier			

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

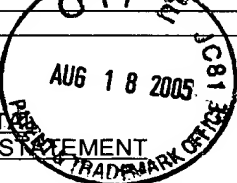
## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

EXAMINER INITIAL	DOC. REF.	CITATION
	AN	
	AO	
	AP	
	AQ	
	AR	

EXAMINER

DATE CONSIDERED

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FIRST NAMED INVENTOR David F. SORRELLS			FILING DATE April 14, 2000	
ART UNIT 2634				

### U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA67	6,512,544 B1	01/2003	Merrill <i>et al.</i>			
	AB67	6,628,328 B1	09/2003	Yokouchi <i>et al.</i>			
	AC67	6,801,253 B1	10/2004	Yonemoto <i>et al.</i>			
	AD67	3,737,778	06/1973	Van Gerwen <i>et al.</i>			
	AE67	4,286,283	08/1981	Clemens			
	AF67	4,241,451	12/1980	Maixner <i>et al.</i>			
	AG67	5,014,130	05/1991	Heister <i>et al.</i>			
	AH67	5,390,215	02/1995	Anita <i>et al.</i>			
	AI67	5,805,460	09/1998	Greene <i>et al.</i>			

### FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

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	AO	
	AP	
	AQ	
	AR	

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